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REMARKS/ARGUMENTS

1. Claims 1-3 are pending.

2. Claims 1-2 stand rejected, under 35 U.S.C. § 103(a), for obviousness over Cheung et al. (hereinafter "Cheung"), in view of Schuurs et al. (hereinafter "Schuurs"), and further in view of Metcalfe et al. (hereinafter "Metcalfe").

Applicants submit herewith Exhibit A, which details that the Cheung reference (Analytical Chemistry 282: 24-28, 2000) was published in the June 15, 2000 edition of the journal. Therefore, the Cheung reference does not qualify as prior art, under 35 U.S.C. § 102(b), over the present application, which claims priority from U.S. Provisional Patent Appl. No. 60/265,135, filed January 30, 2001.

Furthermore, Applicants submit herewith a 37 C.F.R. 1.131 Declaration of Janice A. Brown, co-inventor on the present application, which recounts that the claimed invention of claims 1 and 2 was conceived and reduced to practice prior to June, 2000.

Accordingly, Applicants respectfully request reconsideration of the Office Action mailed February 26, 2004.

3. Claim 3 stands rejected, under 35 U.S.C. § 103(a), for obviousness over Cheung, in view of Schuurs, in further view of Metcalfe, and further in view of Craig et al. (hereinafter "Craig").

Applicants submit herewith a 37 C.F.R. 1.131 Declaration of Janice A. Brown, co-inventor on the present application, which describes that the claimed invention of claim 3 was conceived and reduced to practice prior to June, 2000.

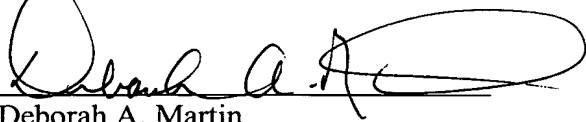
Accordingly, Applicants respectfully request reconsideration of the Office Action mailed February 26, 2004.

4. In view of the Remarks/Arguments hereinabove, and the Declaration submitted herewith, Applicants believe that the Application is in condition for immediate allowance. Therefore, reconsideration of the Office Action mailed February 26, 2004, and a timely Notice of Allowance is respectfully requested.

Appl. No. 10/053,262
Amendment dated July 26, 2004
Reply to Office Action of February 26, 2004

Date: July 26th, 2004

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Deborah A. Martin", written over a horizontal line.

Deborah A. Martin
Attorney for Applicant
Reg. No. 44,222

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Exhibit A

Appl. No. 10/053, 262 - Response to
Office Action of February 26, 2004

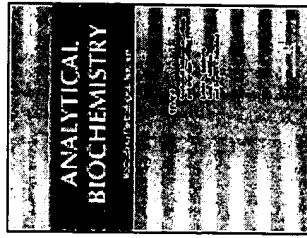
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Analytical Biochemistry

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Purpose: Repeat the compound (see below) dose responses using the biotinylated NAD PARP ELISA assay format

Procedure

Biotinylated NAD

PARP (partially purified) 5 µg/l

5.3 mg/l protein in stock

dilute stock 1:1000 to make a 5.3 µg/l stock

For 1 plt make 13 µl

13 µl PARP + 12.987 µl buffer (50 mM Tris HCl pH 8.0, 20 µM ZnCl₂, 4 mM MgCl₂)

Coat Plates overnight at 4°C

Wash 3x w T-PBS

Add the following (note for the next step keep all reagents on ice)

Buffer (50 mM Tris HCl pH 8.0, 20 µM ZnCl₂, 4 mM MgCl₂)

For 1 plt make 15 ml buffer

Cold NAD 100 µM (FC)

66.34 mg/L = 100 µM NAD

$\frac{66.34 \text{ mg}}{1000 \text{ L}} = \frac{15}{15 \text{ L}} = .995 \text{ mg NAD} / 15 \text{ L buffer} = 100 \text{ µM NAD}$

DTT 1 mM (FC)

152.4 mg/L = 1 mM DTT

$\frac{152.4 \text{ mg}}{1000 \text{ L}} = \frac{15}{15 \text{ L}} = 2.286 \text{ mg DTT} / 15 \text{ L buffer} = 1 \text{ mM DTT}$

Biotinylated NAD (25 µM FC)

make 4.5 µl so add

1.450 µl Biotinylated NAD to 13.050 µl of buffer containing cold NAD (100 µM) and DTT (1 mM)

Note: Adding biotinylated NAD to the above + cold NAD and + DTT buffer will cause a

10% reduction in buffer conc so now have

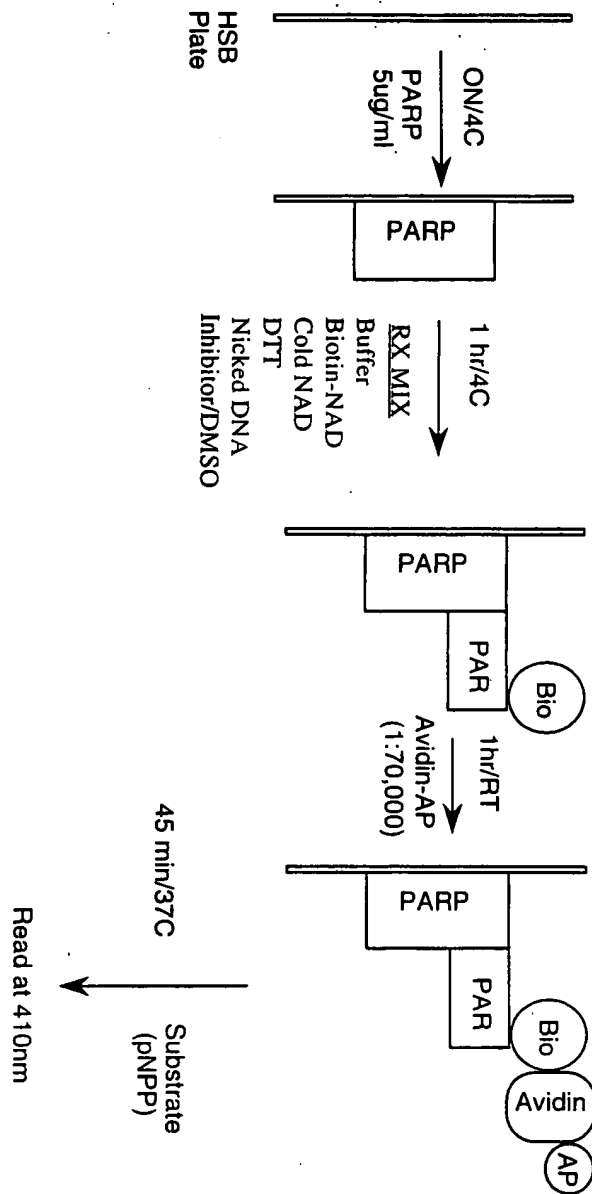
45 mM Tris HCl, 18 µM ZnCl₂, 3.6 mM MgCl₂

90 µM cold NAD and 900 µM DTT. This was the same way buffer establishing these assay

Janice Brown
first

Joseph Moe Andrew

PARP Biotinylated NAD Assay



James Brown

James Brown



I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Hon. Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on this 26th day of July, 2004.

By

Janice M. Denison
(Signature of person mailing)
Janice M. Denison
(Typed or printed name of person)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

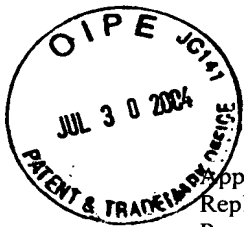
Appl. No.: 10/053,262
In Re Application of Janice A. Brown
et al.
Filed: January 18, 2002
Group Art Unit: 1641
Examiner: Davis, Deborah A.
Docket No.: PC11044ADAM
Customer No.: 28523

Hon. Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

37 CFR § 1.131 DECLARATION OF JANICE A. BROWN

Sir:

1. I, Janice A. Brown, am the first named inventor of the above-captioned application.
2. I, together with co-inventor Ravi B. Marala, conceived of, and reduced to practice, the invention claimed in Claims 1-3 of the pending application, before June, 2000.
3. Exhibit B, attached herewith, is a copy of a laboratory notebook (2 pages total) that I prepared, signed, and had witnessed, before June, 2000. Exhibit B is redacted only as to the dates of the laboratory notebook disclosure and witnessing, dates which all occur before June, 2000.
4. Exhibit A describes a method to assay poly(ADP-ribose) polymerase (PARP) activity which includes the steps of immobilizing PARP on a multiwell HSB plate, contacting the immobilized PARP with biotinylated nicotinamide-adenine-dinucleotide (NAD), at 4°C, and under conditions that allow PARP auto-ribosylation, contacting the auto-ribosylated PARP with



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an avidin-conjugated alkaline phosphatase detectable marker, thereby forming a complex between the auto-ribosylated PARP and the detectable marker, and measuring the amount of detectable marker complexed to auto-ribosylated PARP using a p-nitrophenyl phosphate (pNPP) substrate of alkaline phosphatase as an indication of the amount of PARP activity in the sample, wherein none of the above-listed reagents are radioactive.

5. I further declare that all statements made herein of my own knowledge are true and that all statements made on belief are believed true; and further, that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-captioned application or any patent issuing therefrom.

Date

7/26/04

Janice A. Brown